

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Fairways Exploration & Production, LLC

Well Name/Number: States 1-21

Location: NW NW Section 21 T27N R8W

County: Teton, **MT;** **Field (or Wildcat)** W/C

Air Quality

(possible concerns)

Long drilling time: 15 to 30 days drilling time.

Unusually deep drilling (high horsepower rig): No, triple derrick drilling rig for a 7600'MD/7574'TVD Cambrian Formation directional hole.

Possible H2S gas production: Yes, possible.

In/near Class I air quality area: No, Class I air quality area nearby.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Triple derrick drilling rig to drill a directional Cambrian Formation test hole to 7600'MD/7574'TVD.

Water Quality

(possible concerns)

Salt/oil based mud: Use freshwater and freshwater mud system on drilling surface and mainhole to total depth.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainage is an ephemeral tributary drainage to the Middle Fork Dry Fork Marias River, about 1/16 of a mile to the west and northwest from this location.

Water well contamination: No, closest water wells are about 1 mile to the northeast and 1 mile to the south from this location. Depth of all these water wells are 10' to 14'.

Surface casing hole will be drilled with freshwater and freshwater muds to 1000' and steel surface casing run and cemented to surface to protect groundwater.

Porous/permeable soils: Yes, sandy gravelly soils.

Class I stream drainage: No Class I stream drainage nearby.

Mitigation:

☒ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☒ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 1000' of surface casing cemented to surface adequate to protect freshwater. Also, fresh water mud systems to be used on surface hole.

Freshwater mud system will be used to drill from the base of surface casing to total depth.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: None anticipated.

High erosion potential: No, large cut, up to 36.5' and moderate fill required up to 18.7', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, large, 300'X300' location size required.

Damage to improvements: Slight, surface use is private grazing land.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Using existing county roads, West Gypsy Basin Road and private ranch access road, approximately 750' of new road will be constructed into this location off the ranch access road. Cuttings will be buried in the lined reserve pit. Drilling fluids will be allowed to dry in the lined pit or hauled to a Class II disposal. Pit will be backfilled when dry. No special concerns

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: There are 3 residences within ½ of a mile northwest from this wellsite. The town of Pendroy, Montana is about 16 miles east from this location. The town of Bynum, Montana is about 16.75 miles to the southeast from this location. A Hutterite colony, Rockport Colony is about 8 miles to the east southeast from this location.

Possibility of H₂S: Possible, H₂S gas.

Size of rig/length of drilling time: Triple derrick drilling rig to drill a 7600'MD/7574'TVD, drilling time is about 15 to 30 days.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☒ H₂S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Proper BOP stack and surface casing should be able to control any problems that occurs. An emergency H₂S contingency plan will be in effect.

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): Blackleaf State Wildlife Management Area about 4.25 miles to the south, the National Forest (Lewis and Clark)

boundary is about 4.25 miles to the west and the Wilderness (Bob Marshall) boundary is about 6.25 miles to the west from this location.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endanger in Teton County are Grizzly Bear and Canada Lynx. Candidate species are the Sprague's Pipit and the Wolverine. NH tracker website lists 8 species of concern. They are as follows: Wolverine, Canada Lynx, Fisher, Fringed Myotis, Grizzly Bear, Golden Eagle, Veery and Clark's Nutcracker.

Mitigation:

— Avoidance (topographic tolerance/exception)

— Other agency review (DFWP, federal agencies, DSL)

— Screening/fencing of pits, drillsite

— Other: _____

Comments: Private grassland. There maybe species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. Garbage will be stored in caged containers and removed regularly. Drilling reserve pit will be fenced.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites None identified

Mitigation

— avoidance (topographic tolerance, location exception)

— other agency review (SHPO, DSL, federal agencies)

— Other: _____

Comments: Private grassland. There maybe possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)

— Substantial effect on tax base

— Create demand for new governmental services

— Population increase or relocation

Comments: No concerns

Remarks or Special Concerns for this site

Well is a directional well test of the Cambrian Formation to be drilled to 7600'MD/7574'TVD.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected . Some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): \s\Steven Sasaki
(title:) Chief Field Inspector
Date: September 12, 2011

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Teton County water wells
(subject discussed)

June 13, 2011
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Teton County
(subject discussed)

June 13, 2011
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T27N R8W
(subject discussed)

June 13, 2011
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____